CLAIMS:

1. An electronic device for cryptographic processing, comprising at least two electronic circuits (IC, CC, CP) coupled via a connection means, wherein the connection means is arranged for transferring data signals between the two electronic circuits, characterized by a monitoring circuit (401) arranged to monitor a deviation in the capacitance of the connection means and to generate an alert signal (411) if the deviation exceeds a predetermined value.

2. An electronic device for cryptographic processing according to claim 1, wherein the monitoring circuit is arranged to monitor the data signals transferred via the connection means and to compare a monitored signal with a reference signal.

3. An electronic device according to claim 1, wherein the electronic circuits comprise a logical circuit and a storage element arranged to store data output by the logical circuit.

4. An electronic device according to claim 2, wherein the monitoring circuit is a propagation delay detection circuit.

5. An electronic device according to claim 2, wherein the monitoring circuit is a slew-rate deviation detection circuit.

6. An electronic device according to claim 1, wherein the monitoring circuit is arranged to monitor a value of the capacitance of the connection means and to compare the monitored value with a reference value.

7. An electronic device according to claim 2, wherein the reference signal is derived from a Monte-Carlo analysis performed on the electronic device.

8. An electronic device according to claim 2, wherein the electronic device further comprises a dummy electronic circuit (405) having at least a dummy connection means (409) with a capacitance comparable to that of the connection means, and wherein the monitoring circuit is further arranged to determine the reference signal by monitoring the dummy connection means when transferring a data signal identical to that transferred via the connection means.

9. An electronic device according to claim 1, wherein the electronic device is further arranged to use the alert signal to power down at least a part of the electronic device.

10. A method for cryptographic processing, using an electronic device comprising at least two electronic circuits (IC, CC, CP) coupled via a connection means, comprising the step of transferring data signals between the two electronic circuits via the connection means, characterized in that the method further comprises the steps of:

- monitoring a deviation in the capacitance of the connection means
- generating an alert signal if the deviation exceeds a predetermined value.